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Nebraska Summary: S1018A Massey Ferguson 7724

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SUMMARY OF OECD TEST 2916-NEBRASKA SUMMARY 1018A

MASSEY FERGUSON 7724 DYNA 6 DIESEL

ALSO MASSEY FERGUSON 7724S DYNA 6 DIESEL

24 SPEED

POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Diesel Consumption Gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	D.E.F. Consumption Gal/hr (l/h)	Mean Atmospheric Conditions
MAXIMUM POWER AND FUEL CONSUMPTION						
Rated Engine Speed—(PTO speed)—1088 rpm)						
201.0 (149.9)	2099	11.93 (45.15)	0.414 (0.252)	16.85 (3.32)	0.76 (2.88)	
Maximum Power (1 hour)						
217.2 (162.0)	1949	12.24 (46.34)	0.393 (0.239)	17.75 (3.50)	0.84 (3.17)	
Standard Power Take-off Speed (1000 rpm)						
216.6 (161.5)	1930	12.21 (46.21)	0.393 (0.239)	17.74 (3.50)	0.84 (3.18)	

VARYING POWER AND FUEL CONSUMPTION

201.0 (149.9)	2099	11.93 (45.15)	0.414 (0.252)	16.85 (3.32)	0.76 (2.88)	Air temperature
172.5 (128.6)	2118	10.33 (39.12)	0.418 (0.254)	16.70 (2.92)	0.61 (2.32)	75°F (24°C)
129.9 (96.9)	2128	8.11 (30.70)	0.435 (0.265)	16.02 (3.16)	0.45 (1.71)	Relative humidity
87.0 (64.9)	2136	6.05 (22.88)	0.486 (0.295)	14.39 (2.83)	0.38 (1.43)	52%
43.7 (32.6)	2146	4.07 (15.42)	0.651 (0.396)	10.73 (2.11)	0.23 (0.87)	Barometer
--	2153	2.38 (9.01)	--	--	--	30.2" Hg (102.2 kPa)

Maximum torque - 737.3 lb.-ft. (999.6 Nm) at 1150 rpm
 Maximum torque rise - 46.5%
 Torque rise at 1700 engine rpm - 23%
 Power increase at 1950 engine rpm - 8.1%

DRAWBAR PERFORMANCE (Unballasted - Front Drive Engaged) FUEL CONSUMPTION CHARACTERISTICS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Temp.°F (°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
Power at Rated Engine Speed—13th(3B) Gear									
170.4 (127.1)	10745 (47.8)	5.95 (9.57)	2096	5.2	0.484 (0.295)	14.30 (2.82)	190 (88)	86 (30)	29.9 (101.4)
75% of Pull at Rated Engine Speed—13th(3B) Gear									
132.1 (98.5)	8050 (35.8)	6.15 (9.90)	2128	3.7	0.535 (0.325)	12.94 (2.55)	190 (88)	86 (30)	29.9 (101.4)
50% of Pull at Rated Engine Speed—13th(3B) Gear									
90.7 (67.6)	5445 (24.2)	6.25 (10.05)	2134	2.2	0.650 (0.396)	10.65 (2.10)	187 (86)	86 (30)	30.0 (101.5)
75% of Pull at Reduced Engine Speed—15th(3C) Gear									
131.8 (98.3)	8070 (35.9)	6.13 (9.86)	1829	3.8	0.482 (0.293)	14.37 (2.83)	189 (87)	86 (30)	30.0 (101.5)
50% of Pull at Reduced Engine Speed—15th(3C) Gear									
91.2 (68.0)	5440 (24.2)	6.29 (10.12)	1834	2.2	0.510 (0.310)	13.60 (2.68)	185 (85)	86 (30)	30.0 (101.5)

Location of tests: IRSTE, Centre d'Antony, 1 rue Pierre-Gilles de Gennes CS 10030 Antony, 92163, Cedex, France

Dates of tests: July to August, 2015

Manufacturer: AGCO S.A. BP 307, Avenue Blaise Pascal, 60026 Beauvais, France

CONSUMABLE FLUIDS: Fuel No. 2 Diesel
 Specific gravity converted to 60°/60°F (15°/15°C)
 0.838 Fuel weight 6.98 lbs/gal (0.836 kg/l) Diesel
 Exhaust Fluid (DEF) 32% aqueous urea solution
 DEF weight 9.10 lbs/gal (1.091 kg/l) Oil SAE
 15W40 API service classification CJ-4
 Transmission and hydraulic lubricant BP Terrac
 Tractan 9 15W/40 Front axle lubricant BP Terrac
 Tractan 9 15W/40

ENGINE: Make AGCO Power Diesel Type six cylinder vertical with turbocharger, air to air intercooler and SCR (selective catalyst reduction) exhaust treatment Serial No. Y00233 Crankshaft lengthwise Rated engine speed 2100 Bore and stroke 4.252" x 5.276" (108.0 mm x 134.0 mm) Compression ratio 17.8 to 1 Displacement 449 cu in (7365 ml) Starting system 12 volt Lubrication pressure Air cleaner two paper elements Oil filter one full flow cartridge Oil cooler engine coolant heat exchanger for crankcase oil, radiator for hydraulic and transmission oil Fuel filter three paper cartridges Muffler vertical Cooling medium temperature control thermostat and variable speed fan

CHASSIS: Type front wheel assist Serial No. D 119901 Tread width rear 52.8" (1340 mm) to 87.8" (2230 mm) front 52.8" (1340 mm) to 87.8" (2230 mm) Wheelbase 117.0" (2973 mm) Hydraulic control system direct engine drive Transmission selective gear fixed ratio with partial (6) range operator controlled powershift Nominal travel speeds mph (km/h) first 0.99 (1.60) second 1.19 (1.92) third 1.40 (2.25) fourth 1.68 (2.71) fifth 1.98 (3.19) sixth 2.39 (3.84) seventh 2.68 (4.32) eighth 3.23 (5.19) ninth 3.78 (6.09) tenth 4.55 (7.33) eleventh 5.14 (8.27) twelfth 5.36 (8.62) thirteenth 6.18 (9.94) fourteenth 6.45 (10.38) fifteenth 7.25 (11.67) sixteenth 8.72 (14.04) seventeenth 10.26 (16.51) eighteenth 12.35 (19.87) nineteenth 14.26 (22.95) twentieth 17.15 (27.60) twenty-first 20.13 (32.39) twenty-second 24.22 (38.98) twenty-third 24.86 (40.00) twenty-fourth 24.86 (40.00) electronically limited reverse 0.99 (1.60), 1.19 (1.92), 1.40 (2.25), 1.68 (2.71), 1.98 (3.19), 2.39 (3.84), 2.68 (4.32), 3.23 (5.19), 3.78 (6.09), 4.55 (7.33), 5.14 (8.27), 5.36 (8.62), 6.18 (9.94), 6.45 (10.38), 7.25 (11.67), 8.72 (14.04) 10.26 (16.51), 12.35 (19.87), 14.26 (22.95), 17.15 (27.60), 20.13 (32.39), 24.22 (38.98), 24.86 (40.00), 24.86 (40.00) electronically limited

DRAWBAR PERFORMANCE
(Unballasted - Front Drive Engaged)
MAXIMUM POWER IN SELECTED GEARS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.hr)	Temp. °F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
3rd(1C) Gear								
59.4 (44.3)	18120 (80.6)	1.23 (1.98)	2137	15.0	0.654 (0.398)	10.60 (2.09)	180 (82)	29.9 (101.4)
4th(1D) Gear								
72.0 (53.7)	17805 (79.2)	1.52 (2.44)	2133	13.0	0.614 (0.373)	11.29 (2.22)	181 (83)	29.9 (101.4)
5th(1E) Gear								
84.1 (62.7)	17155 (76.3)	1.84 (2.96)	2131	10.0	0.578 (0.352)	11.98 (2.36)	181 (83)	29.9 (101.4)
6th(1F) Gear								
100.2 (74.7)	16885 (75.1)	2.23 (3.58)	2128	9.0	0.561 (0.341)	12.34 (2.43)	187 (86)	29.9 (101.4)
7th(2A) Gear								
113.5 (84.6)	16905 (75.2)	2.52 (4.05)	2124	9.1	0.531 (0.323)	13.05 (2.57)	189 (87)	29.9 (101.4)
8th(2B) Gear								
136.0 (101.4)	16950 (75.4)	3.01 (4.84)	2114	9.2	0.515 (0.313)	13.45 (2.65)	189 (87)	29.9 (101.4)
9th(2C) Gear								
151.4 (112.9)	16320 (72.6)	3.48 (5.60)	2058	8.0	0.496 (0.302)	13.96 (2.75)	192 (89)	29.9 (101.4)
*10th(2D) Gear								
164.0 (122.3)	15175 (67.5)	4.05 (6.52)	1986	6.6	0.496 (0.302)	13.96 (2.75)	192 (89)	29.9 (101.4)
*11th(3A) Gear								
181.8 (135.6)	15220 (67.7)	4.48 (7.21)	1953	6.7	0.469 (0.285)	14.77 (2.91)	194 (90)	29.9 (101.4)
*12th(2E) Gear								
177.3 (132.2)	14075 (62.6)	4.72 (7.60)	1950	6.0	0.477 (0.290)	14.57 (2.87)	192 (89)	29.9 (101.4)
*13th(3B) Gear								
184.9 (137.9)	12815 (57.0)	5.41 (8.71)	1940	5.5	0.459 (0.279)	15.08 (2.97)	192 (89)	29.9 (101.4)
*14th(2F) Gear								
182.6 (136.2)	11780 (52.4)	5.81 (9.36)	1965	5.0	0.467 (0.284)	14.82 (2.92)	194 (90)	29.9 (101.4)
*15th(3C) Gear								
186.4 (139.0)	10610 (47.2)	6.59 (10.60)	1955	4.7	0.459 (0.279)	15.08 (2.97)	192 (89)	30.0 (101.5)
*16th(3D) Gear								
184.7 (137.7)	8655 (38.5)	8.00 (12.88)	1964	3.8	0.458 (0.279)	15.13 (2.98)	192 (89)	30.0 (101.5)
*17th(3E) Gear								
179.7 (134.0)	7105 (31.6)	9.50 (15.27)	1964	3.0	0.482 (0.293)	14.37 (2.83)	190 (88)	30.0 (101.5)
*18th(3F) Gear								
172.3 (128.5)	5690 (25.3)	11.36 (18.28)	1963	2.0	0.500 (0.304)	13.86 (2.73)	192 (89)	30.0 (101.5)

*Powerboost mode

Horizontal distance of drawbar hitch point behind rear wheel axis - 33.5 in (850 mm), 37.4 in (950 mm), 39.4 in (1000 mm), 43.3 in (1100 mm), 45.3 in, (1150 mm), 49.2 in (1250 mm)

TIRES, BALLAST AND WEIGHT

Rear Tires - No., size, ply & psi(kPa)
Front Tires - No., size, ply & psi(kPa)
Height of Drawbar
Static Weight with operator - Rear
- Front
- Total

Tested without ballast

Two 650/85R38; **15(100)
Two 600/70R28; **16(110)
23.6 in (600 mm)
11665 lb (5290 kg)
8345 lb (3785 kg)
20010 lb (9075 kg)

Clutch multiple wet disc operated by foot pedal
Brakes multiple wet disc hydraulically operated by two foot pedals that can be locked together
Steering hydrostatic **Power take-off** 540 rpm at 1890 engine rpm or 1000 rpm at 1930 engine rpm
Unladen tractor mass 19840 lb (9000 kg)

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

NOTE 1: This tractor has a power management system that provides an engine power increase when the PTO is engaged and for travel speeds from gear 2D and higher.

NOTE 2: The performance figures on this report are the result of replacing the electronic engine control module of the Massey Ferguson 7726 with the Massey Ferguson 7724 module.

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. The performance figures on this summary were taken from a test conducted under the OECD Code 2 test procedure.

REPORT REISSUED: Supplemental sales permit for Massey Ferguson 7724S Dyna 6 Diesel, August, 2018.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **2916**, Nebraska Summary 1018A, December 19, 2018.

Roger M. Hoy
Director

M.F. Kocher
J.D. Luck
P.J. Jasa
Board of Tractor Test Engineers

HYDRAULIC PERFORMANCE

CATEGORY: III

Quick Attach: None

OECD Static test

Maximum force exerted through whole range: 13920 lbs (61.9 kN)

i) Sustained pressure of the open relief valve: 2700 psi (186 bar)

Standard Pump

Optional pump

29 GPM (110 l/min)

39 GPM (150 l/min)

two outlet sets combined

two outlet sets combined

ii) Pump delivery rate at minimum pressure: 30.7 GPM (116.2 l/min) 42.1 GPM (159.2 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 29.2 GPM (110.5 l/min) 38.6 GPM (146.3 l/min)

Delivery pressure: 1990 psi (137 bar) 1820 psi (126 bar)

Power: 33.9 HP (25.2 kW) 41.0 HP (30.6 kW)

single outlet set

single outlet set

ii) Pump delivery rate at minimum pressure: 30.2 GPM (114.2 l/min) 29.6 GPM (112.0 l/min)

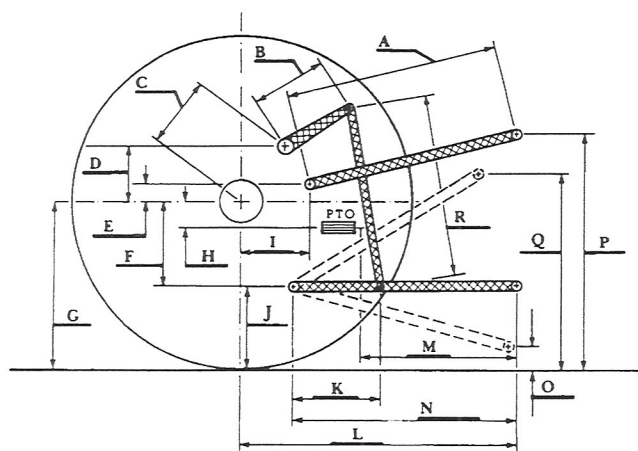
iii) Pump delivery rate at maximum

hydraulic power: 28.6 GPM (108.3 l/min) 27.0 GPM (102.1 l/min)

Delivery pressure: 1975 psi (136 bar) 1945 psi (134 bar)

Power: 32.9 HP (24.5 kW) 30.6 HP (22.8 kW)

HITCH DIMENSIONS AS TESTED—NO LOAD



	inch	mm
A	31.1	790
B	15.7	400
C	20.7	525
D	19.1	485
E	8.3	210
F	12.2	310
G	38.4	975
H	2.0	50
I	17.7	450
J	26.2	665
K	23.3	591
L	48.3	1228
M	23.6	600
N	38.2	970
O	9.3	235
P	44.7	1135
Q	40.0	1017
R	39.4	1000

TRACTOR SOUND LEVEL WITH CAB

	Front wheel drive	
	Engaged dB(A)	Disengaged dB(A)
At no load in 10th (2D) gear	70.0	69.0
Bystander		--

RECOMMENDED CITATION FORMAT:

NTTL.(2018). OECD tractor test 2916 for Massey Ferguson 7724S Dyna 6 Diesel.

Lincoln, NE:Nebraska Tractor Test Laboratory. Retrieved from <http://tractortestlab.unl.edu>